Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte MICHAEL J. MILLER and CLARENCE D. VANDERPOOL

Appeal No. 96-3499
Application No. 08/271,569[1]

ON BRIEF

Before WINTERS, GARRIS and KRATZ, Administrative Patent Judges.

KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 4, which are all of the claims pending in this application.

[1] Application for patent filed May 26, 1992. According to appellants, this application is a continuation of Application 07/587,142, filed September 24, 1990, now abandoned.

The appellants' invention relates to a method of recovery of tungsten from spent catalysts. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A method for recovering tungsten from a composition consisting essentially of a tungsten containing spent catalyst, said method comprising:

a) digesting said catalyst in aqueous sodium hydroxide solution wherein the mole ratio of said sodium hydroxide to said tungsten contained in said spent catalyst is from about 2.6 to about 4.2 and wherein the amount of water is sufficient to dissolve the subsequently produced sodium tungstate, at atmospheric pressure and a temperature of about 90EC for a length of time of at least about 1 hour to convert greater than about 77% by weight of said tungsten contained in said spent catalyst to sodium tungstate and form a sodium tungstate solution thereof and a residue containing the balance of the starting tungsten; and

b) separating said sodium tungstate solution from said residue.

The sole reference of record relied upon by the examiner in rejecting the appealed claims is:

Wiewiorowski	4,666,685	May 19, 1987

Claims 1 through 4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Wiewiorowski.

Rather than reiterate all of the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the examiner's answer and to the appellants' brief for a complete exposition of the opposing viewpoints expressed by the appellants and the examiner concerning the above-noted rejection.

OPINION

In reaching our decision, we have given careful consideration to the appellants' specification and claims, to the applied prior art reference, and to the respective positions articulated by the appellants and the examiner.

For the reasons which follow, we cannot sustain the rejection presented by the examiner in this appeal.

On the record of this appeal, the examiner has not carried the burden of establishing a prima facie case of obviousness with respect to the subject matter defined by the appealed claims.

Wiewiorowski (column 2, lines 10-48) discloses a process for the removal of molybdenum and vanadium from spent catalyst. The process includes the leaching of an aqueous slurry of the spent catalyst in the presence of oxygen with sodium hydroxide and/or sodium aluminate present in a least stoichiometric amounts to convert molybdenum to sodium molybdate, vanadium to sodium vanadate, and, any tungsten that may be present in the spent catalyst to sodium tungstate. The oxygen pressure leaching is taught to occur at a temperature

of about 150°-250°C and under a total pressure of about 150-400 psig. (column 2, lines 23 -29).

In Table 1 of Wiewiorowski, results from Example 1 of the patent are reported. The examiner relies on Table 1 to show that a leaching test was conducted at 93°C[2] and atmospheric pressure. The examiner apparently acknowledges (Answer, page 4, lines 2 and 3) that example 1 does not disclose that tungsten was even present in the spent catalyst treated in that particular test run. Rather, the examiner relies on Wiewiorowski's disclosure in the abstract; columns 1-3; and claim 8 regarding the possibility of optionally recovering tungsten from spent catalysts as a tungstate at relatively high temperatures and pressures. According to the examiner, those disclosures would have suggested the here claimed process of recovering tungsten from spent catalysts including the steps of using an atmospheric pressure and 90EC digestion with aqueous sodium hydroxide.

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[2] We note that the examiner has not provided a satisfactory explanation as to how the examiner concludes that 93°C is about 90°C (Answer, page 3).

In our view, however, the present record does not afford an adequate basis for concluding that an artisan with ordinary skill in the art would have been taught to modify the high temperature, high pressure extraction process of Wiewiorowski to use a temperature of about 90°C at atmospheric pressure to leach and convert, with aqueous sodium hydroxide, at least 77 percent of the tungsten in a tungsten containing spent catalyst to sodium tungstate in accordance with the process of appealed claim 1.

We note that patentee does not appear to ascribe any such significance to the Table 1 results regarding the extraction of molybdenum, vanadium and sulfur. Nor has the examiner furnished any additional evidence regarding the recovery of tungstate from tungsten containing spent catalysts using aqueous sodium hydroxide leaching at about 90°C at atmospheric pressure conditions.

Rejections based on § 103 must rest on a factual basis without the use of impermissible hindsight gleaned from appellants' disclosure. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply

deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). Our reviewing court has repeatedly cautioned against employing hindsight by using an appellant's disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. See, e.g., Grain Processing Corp. v. American Maize-Prods., Co., 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

We disagree with the examiner's conclusion of obviousness of the claimed method, based on the Wiewiorowski patent as the sole evidence relied upon. In our judgment, this rejection is predicated on the impermissible use of hindsight.

The decision of the examiner to reject claims 1-4 under 35 U.S.C. § 103 is reversed.

REVERSED

SHERMAN D. WINTERS Administrative Patent Judge	)	
BRADLEY R. GARRIS Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
PETER F. KRATZ Administrative Patent Judge	)	

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